

CLAIMS

1. Air filtration apparatus comprising:

a housing having a pollution-collecting chamber, an air inlet for receiving air into the pollution-collecting chamber, and an air outlet for passing filtered air from the pollution collecting chamber

a container for holding water adjacent the pollution-collecting chamber;

a motor disposed on the housing and having an output shaft rotatable about an axis of rotation, and fan means for passing air from the air inlet toward the air outlet along a path of motion;

an elongated hollow member connected to the output shaft for rotation about said axis, said hollow member having a lower inlet opening disposable in the water in the container, and perforations for passing water from the hollow member into the pollution-collecting chamber to form a pollution-collecting spray in said path of motion of the air passing from the air inlet to the air outlet; and

the hollow member being formed to draw water from the container of water into the hollow member through the perforations and into the pollution-collecting chamber as a spray under centrifugal force as the hollow member is being rotated.

2. Apparatus as defined in Claim 1, in which the housing inlet comprises a tube having an outlet in the pollution-collecting chamber for passing

air from the air inlet, to impact the water surface to remove pollutants from air passing through the pollution-collecting chamber.

3. Apparatus as defined in Claim 1, in which the motor is a squirrel
5 cage motor having fan means for moving air from the air inlet through the pollution-collecting chamber and out the air outlet.

4. Apparatus as defined in Claim 1 in which the hollow member
scoops water from the container of water, and discharges the water issuing from
10 the hollow member perforations to create a mist of water in the path of motion of the air passing through the pollution-collecting chamber.

5. Apparatus as defined in Claim 1 in which the hollow member is an
elongated curved tube having an upper end connected to the output shaft, and a
15 lower portion disposed in the water in the container.

6. Apparatus as defined in Claim 1, including a H.E.P.A. and charcoal
filter disposed in the path of the air passing from the pollution collecting chamber
to the air outlet.
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7. Apparatus as defined in Claim 1, including aromatic means for
aromatizing air passing through the air outlet.

8. Apparatus as defined in Claim 1, in which the motor is a brushless motor.

9. A method for removing pollutants from air containing pollutants,
5 comprising the steps of:

providing a housing having a pollution collecting chamber,
an air inlet for receiving air into the pollution collecting chamber and an air outlet
for passing filtered air from the pollution collecting chamber

providing a container of water adjacent the pollution
10 collecting chamber;

providing a motor having an output shaft rotatable about an
axis of rotation, and fan means for passing air from the air inlet toward the air
outlet;

connecting an elongated tubular member to the output shaft
15 for rotation about said axis rotating the tubular member such that a lower inlet
opening in the water draws water into the tubular member, and then discharges
the water through perforation in the tubular member into the pollutant-collecting
chamber to form a rain-like mist in the path of matter of the air passing
therethrough.